

SEQUENCE LISTING

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JUN 1 4 2001

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576

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<110> Bukh, J.
Miller, R.H.
Purcell, R.H.
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<120> Nucleotide and Deduced Amino Acid Sequences of the Envelope 1 and Core Genes of Isolates of Hepatitis C Virus and the use of Reagents Derived From These Sequences in Diagnostic Methods and Vaccines

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<140> 09/084,691
<141> 1998-05-26
<150> 08/290,665
<151> 1994-08-15
<150> 08/086,428
<151> 1993-06-29
<160> 274
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20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Val Ser Arg Cys Trp 35 40 45

Val Ala Met Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Thr 50 55 60

Ala Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Thr Gln Gly
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ala
130 135 140

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Leu Val Val Leu Leu Leu Phe Ala Gly Val Asp Ala 180 185 190

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<400> 53

Tyr Gln Val Arg Asn Ser Ser Gly Leu Tyr His Val Thr Asn Asp Cys

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Pro Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu His Ser 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ala Ser Lys Cys Trp 35 40 45

Val Ala Val Ala Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Ala 50 55 60

Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Thr Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Met Ala 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Ile Leu Asp Met Ile Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Val Val Leu Leu Leu Phe Thr Gly Val Asp Ala 180 185 190

<210> 54

<211> 192

<212> PRT

<213> Homo sapiens

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<223> Individual Isolate: DR1

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Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ala Ser Arg Cys Trp 35 40 45

Val Ala Val Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Thr 50 55 60

Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu
65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Thr Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Met Ala 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Ile Leu Asp Met Ile Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Val Val Leu Leu Leu Phe Ala Gly Val Asp Ala 180 185 190

<210> 55

<211> 192

<212> PRT

<213> Homo sapiens

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<223> Individual Isolate: DR4

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His Gln Val Arg Asn Ser Thr Gly Leu Tyr His Val Thr Asn Asp Cys

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Pro Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Thr Ser Arg Cys Trp 35 40 45

Val Ala Val Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Thr 50 55 60

Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Gly Gln Leu Phe Thr Phe Ser Pro Arg His His Trp Thr Thr Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ala 130 135 140

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Leu Val Val Leu Leu Leu Phe Ala Gly Val Asp Ala 180 185 190

<210> 56

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<212> PRT

<213> Homo sapiens

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<223> Individual Isolate: S14

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Tyr Gln Val Arg Asn Ser Thr Gly Leu Tyr His Val Thr Asn Asp Cys

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Pro Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Ala Ile Leu His Ala 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Thr Ser Arg Cys Trp 35 40 45

Val Ala Met Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Ala 50 55 60

Thr Gln Leu Arg Arg Tyr Ile Asp Leu Leu Val Gly Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg Leu Trp Thr Thr Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ala 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Ile Leu Asp Met Ile Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Leu Val Val Leu Leu Leu Phe Ala Gly Val Asp Ala 180 185 190

<210> 57

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: \$18

<400× 57

Tyr Gln Val Arg Asn Ser Thr Gly Leu Tyr His Val Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Thr Ile Leu His Ser 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ala Ser Arg Cys Trp 35 40 45

Val Pro Val Ala Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Ala 50 55 60

Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Ile Ser Pro Arg Arg His Trp Thr Thr Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Ile Ala
130 135 140

Gln Leu Leu Arg Val Pro Gln Ala Val Leu Asp Met Ile Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Ala Gly Asn 165 170 175

Trp Ala Lys Val Leu Leu Val Leu Leu Leu Phe Ala Gly Val Asp Ala
180 185 190

<210> 58

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SW1

<400> 58

Tyr Gln Val Arg Asn Ser Ser Gly Leu Tyr His Val Thr Asn Asp Cys

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Pro Gly Cys Val Pro Cys Val Arg Glu Asp Gly Ala Pro Lys Cys Trp 35 40 45

Val Ala Val Ala Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Ala 50 55 60

Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Thr Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ala 130 135 140

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Leu Ile Val Leu Leu Leu Phe Ser Gly Val Asp Ala 180 185 190

<210> 59

<211> 192

<212> PRT

<213> Homo sapiens

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<223> Individual Isolate: US11

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Tyr Gln Val Arg Asn Ser Thr Gly Leu Tyr His Val Thr Asn Asp Cys

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Pro Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ala Ser Arg Cys Trp 35 40 45

Val Ala Met Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Thr 50 55 60

Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Thr Gln Gly
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ala 130 135 140

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Leu Val Val Leu Leu Leu Phe Ala Gly Val Asp Ala 180 185 190

<210> 60

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: D1

<400> 60

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Met Ile Met His Thr $20 \hspace{1cm} 25 \hspace{1cm} 30$

Pro Gly Cys Val Pro Cys Val Arg Glu Asp Asn Ser Ser Arg Cys Trp
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Gly Asn Val Pro Thr 50 55 60

Thr Ala Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe 65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Ile 85 90 95

Ser Gln Leu Phe Thr Leu Ser Pro Arg Arg His Glu Thr Val Gln Glu
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser 130 135 140

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly
180 185 190

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<211> 192

<212> PRT

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<223> Individual Isolate: D3

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Ser Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Met Ile Met His Thr
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asp Asn Ser Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ser Ser Val Pro Thr 50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Glu 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly
180 185 190

<210> 62

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK1

<400> 62

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys

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Ser Asn Ser Ser Ile Val Tyr Glu Ala Val Asp Val Ile Met His Thr
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn His Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Ile Pro Thr 50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe 65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Ala Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Leu Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Ala Gly Asn 165 170 175

Trp Ala Lys Val Leu Ile Val Leu Leu Leu Phe Ala Gly Val Asp Gly
180 185 190

<210> 63

<211> 192

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<220>

<223> Individual Isolate: HK3

<400> 63

Tyr Glu Val Arg Asn Val Ser Gly Ile Tyr His Val Thr Asn Asp Cys

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Ser Asn Ser Ser Val Val Tyr Glu Thr Ala Asp Met Ile Met His Thr
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Val Ser Val Pro Thr
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe 65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Leu Tyr Pro Gly His Val Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly
180 185 190

<211	l> 19	92		
<212	2> PI	RT.		
<213	3 > H	omo	sapi	ens
<220)>			
<223	3> I1	ndiv	idua	l Isc
<400	0> 64	4		
His	Glu	Val	His	Asn
1				5
Ser	Asn	Ser	Ser	Ile
			20	
Pro	Gly	Cys	Val	Pro
		2 5		

Val Ser Gly Ile Tyr His Val Thr Asn Asp Cys

Val Tyr Glu Ala Ala Asp Met Ile Met His Thr

Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Ile Pro Thr

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser

Gln Leu Leu Arg Leu Pro Gln Ala Val Met Asp Met Val Ala Gly Ala

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly

<210>	65	
<211>	192	
<212>	PRT	
<213>	Homo sapiens	
<220>		
<223>	Individual Isolate:	HK5

<400> 65

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Leu Ser Ile Val Tyr Glu Thr Thr Asp Met Ile Met His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp 35 40 45

Val Ala Leu Ala Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Pro Thr 50 55 60

Thr Ala Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

<210>	66	
<211>	192	
<212>	PRT	
<213>	Homo	sapiens

<220>

<223> Individual Isolate: HK8

<400> 66

Tyr Glu Val Arg Asn Val Ser Gly Ile Tyr His Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Met Ile Met His Thr
20 25 30

Pro Gly Cys Met Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Val Ser Val Pro Thr
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe 65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser 130 135 140

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

<210> 67 <211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: IND5

<400> 67

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ser Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Ser Thr 50 55 60

Thr Thr Ile Arg His His Val Asp Leu Leu Val Gly Ala Ala Ala Phe 65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala 145 150 155 160

His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

<210> 68

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: IND8

<400> 68

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Phe Ser Ser Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Pro Thr 50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser 130 135 140

His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

<210> 69
<211> 192
<212> PRT
<213> Homo sapiens
<220>
<223> Individual Isolate: P10
<400> 69
Tyr Glu Val Arg Asn Val Ser Gl
1
5
Ser Asn Ser Ser Ile Val Tyr Gl

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ser Ser Val Pro Thr
50 55 60

Thr Ala Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Leu Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Ile Leu Asp Val Val Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

<210> 70

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S9

<400> 70

Tyr Glu Val Arg Asn Val Ser Gly Ala Tyr His Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Val Ile Met His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Gln Glu Gly Asn Ser Ser Gln Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Thr Val Pro Thr
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Val Phe
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Ile 85 90 95

Ser Gln Leu Phe Thr Ile Ser Pro Arg Arg His Glu Thr Val Gln Asn 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Met Asp Met Val Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

180 185 190

<210> 71

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: \$45

<400> 71

Tyr Glu Val Arg Asn Val Ser Gly Ala Tyr His Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Val Asp Val Ile Leu His Thr
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ser Ser Val Pro Thr 50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175 Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly
180 185 190

<210> 72

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA10

<400> 72

Tyr Glu Val Arg Asn Val Ser Gly Met Tyr His Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ser Ser Val Pro Thr
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg Tyr Glu Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly Arg Val Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser 130 135 140

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175 Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly
180 185 190

<210> 73

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SW2

<400> 73

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Met Ile Met His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Ala Asn Ser Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Thr Ser Val Pro Thr 50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe 65 70 75 80

Cys Ser Val Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn

165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly
180 185 190

<210> 74

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T3

<400> 74

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr Tyr Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Met Ile Met His Thr
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Ser Asn Ser Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Pro Thr
50 55 60

Lys Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe 65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser 130 135 140

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Leu Ile Val Leu Leu Leu Phe Ala Gly Val Asp Gly
180 185 190

<210> 75

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T10

<400> 75

Tyr Glu Val Arg Asn Val Ser Gly Met Tyr His Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Phe Glu Ala Ala Asp Leu Ile Met His Thr
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ser Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Thr Ser Val Pro Thr
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe 65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Leu Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Leu Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Met Asp Met Val Thr Gly Ala 145 150 155 160 His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Ala Gly Asn 165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly
180 185 190

<210> 76

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: US6

<400> 76

Tyr Glu Val Arg Asn Val Ser Gly Met Tyr His Val Thr Asn Asp Cys

1 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Pro Thr 50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Thr Phe
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Ile 85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Gln His Glu Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Met Asp Met Val Ala Gly Ala

145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn 165 170 175

Trp Ala Lys Val Leu Ile Val Leu Leu Leu Phe Ala Gly Val Asp Gly
180 185 190

<210> 77

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T2

<400> 77

Ala Gln Val Arg Asn Thr Ser Arg Gly Tyr Met Val Thr Asn Asp Cys

1 10 15

Ser Asn Glu Ser Ile Thr Trp Gln Leu Gln Ala Ala Val Leu His Val 20 25 30

Pro Gly Cys Ile Pro Cys Glu Arg Leu Gly Asn Thr Ser Arg Cys Trp 35 40 45

Ile Pro Val Thr Pro Asn Val Ala Val Arg Gln Pro Gly Ala Leu Thr 50 55 60

Gln Gly Leu Arg Thr His Ile Asp Met Val Val Met Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Gly Val Met Leu Ala 85 90 95

Ala Gln Met Phe Ile Val Ser Pro Arg Arg His Trp Phe Val Gln Glu 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly Thr Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Thr Met Ile Leu Ala 130 135 140 His Trp Gly Val Met Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala 165 170 175

Trp Ala Lys Val Ile Val Ile Leu Leu Leu Ala Ala Gly Val Asp Ala
180 185 190

<210> 78

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T4

<400> 78

Ala Gln Val Lys Asn Thr Thr Asn Ser Tyr Met Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Asp Ser Ile Thr Trp Gln Leu Gln Ala Ala Val Leu His Val 20 25 30

Pro Gly Cys Val Pro Cys Glu Lys Thr Gly Asn Thr Ser Arg Cys Trp 35 40 45

Ile Pro Val Ser Pro Asn Val Ala Val Arg Gln Pro Gly Ala Leu Thr
50 55 60

Gln Gly Leu Arg Thr His Ile Asp Met Val Val Met Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Gly Val Met Leu Ala 85 90 95

Ala Gln Met Phe Ile Val Ser Pro Gln His His Trp Phe Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly Thr Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Thr Met Ile Leu Ala 130 135 140 Tyr Ala Met Arg Val Pro Glu Val Ile Leu Asp Ile Val Ser Gly Ala 145 150 155 160

His Trp Gly Val Met Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala 165 170 175

Trp Ala Lys Val Val Ile Leu Leu Leu Ala Ala Gly Val Asp Ala 180 185 190

<210> 79

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T9

<400> 79

Ala Glu Val Lys Asn Thr Ser Thr Ser Tyr Met Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Asp Ser Ile Thr Trp Gln Leu Gln Ala Ala Val Leu His Val 20 25 30

Pro Gly Cys Val Pro Cys Glu Arg Val Gly Asn Ala Ser Arg Cys Trp 35 40 45

Ile Pro Val Ser Pro Asn Val Ala Val Gln Arg Pro Gly Ala Leu Thr
50 55 60

Gln Gly Leu Arg Thr His Ile Asp Met Val Val Met Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Gly Val Met Leu Ala 85 90 95

Ala Gln Met Phe Ile Ile Ser Pro Gln His His Trp Phe Val Gln Glu
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly Thr Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Thr Met Ile Leu Ala

130 135 140

His Trp Gly Val Met Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala 165 170 175

Trp Ala Lys Val Val Ile Leu Leu Leu Thr Ala Gly Val Asp Ala 180 185 190

<210> 80

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: US10

<400> 80

Val Gln Val Lys Asn Thr Ser Thr Ser Tyr Met Val Thr Asn Asp Cys

1 5 10 15

Ser Asn Asp Ser Ile Thr Trp Gln Leu Glu Ala Ala Val Leu His Val 20 25 30

Pro Gly Cys Val Pro Cys Glu Lys Val Gly Asn Thr Ser Arg Cys Trp 35 40 45

Ile Pro Val Ser Pro Asn Val Ala Val Gln Arg Pro Gly Ala Leu Thr 50 55 60

Gln Gly Leu Arg Thr His Ile Asp Met Val Val Met Ser Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Phe Cys Gly Gly Met Met Leu Ala 85 90 95

Ala Gln Met Phe Ile Val Ser Pro Arg His His Ser Phe Val Gln Glu 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly Thr Ile Thr Gly His Arg Met Ala 115 120 125 Trp Asp Met Met Asn Trp Ser Pro Thr Ala Thr Leu Ile Leu Ala 130 135 140

Tyr Val Met Arg Val Pro Glu Val Ile Ile Asp Ile Ile Ser Gly Ala 145 150 155 160

His Trp Gly Val Leu Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala 165 170 175

Trp Ala Lys Val Val Ile Leu Leu Leu Ala Ala Gly Val Asp Ala 180 185 190

<210> 81

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK8

<400> 81

Val Glu Val Arg Asn Ile Ser Ser Tyr Tyr Ala Thr Asn Asp Cys

1 5 10 15

Ser Asn Asn Ser Ile Thr Trp Gln Leu Thr Asp Ala Val Leu His Leu 20 25 30

Pro Gly Cys Val Pro Cys Glu Asn Asp Asn Gly Thr Leu Arg Cys Trp 35 40 45

Ile Gln Val Thr Pro Asn Val Ala Val Lys His Arg Gly Ala Leu Thr
50 55 60

His Asn Leu Arg Thr His Val Asp Val Ile Val Met Ala Ala Thr Val 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Val Met Ile Val 85 90 95

Ser Gln Ala Leu Ile Ile Ser Pro Glu Arg His Asn Phe Thr Gln Glu 100 105 110

Cys Asn Cys Ser Ile Tyr Gln Gly His Ile Thr Gly His Arg Met Ala 115 120 125 Trp Asp Met Met Leu Asn Trp Ser Pro Thr Leu Thr Met Ile Leu Ala 130 135 140

Tyr Ala Ala Arg Val Pro Glu Leu Ala Leu Gln Val Val Phe Gly Gly
145 150 155 160

His Trp Gly Val Val Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala 165 170 175

Trp Ala Lys Val Ile Ala Ile Leu Leu Leu Val Ala Gly Val Asp Ala 180 185 190

<210> 82

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK11

<400> 82

Val Glu Val Arg Asn Thr Ser Ser Ser Tyr Tyr Ala Thr Asn Asp Cys

1 5 10 15

Ser Asn Asn Ser Ile Thr Trp Gln Leu Thr Asn Ala Val Leu His Leu
20 25 30

Pro Gly Cys Val Pro Cys Glu Asn Asp Asn Gly Thr Leu His Cys Trp 35 40 45

Ile Gln Val Thr Pro Asn Val Ala Val Lys His Arg Gly Ala Leu Thr
50 55 60

His Asn Leu Arg Ala His Ile Asp Met Ile Val Met Ala Ala Thr Val 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Val Met Ile Val 85 90 95

Ser Gln Ala Phe Ile Val Ser Pro Glu His His His Phe Thr Gln Glu 100 105 110

Cys Asn Cys Ser Ile Tyr Gln Gly His Ile Thr Gly His Arg Met Ala

115 120 125

Trp Asp Met Met Leu Asn Trp Ser Pro Thr Leu Thr Met Ile Leu Ala 130 135 140

Tyr Ala Ala Arg Val Pro Glu Leu Val Leu Glu Val Val Phe Gly Gly
145 150 155 160

His Trp Gly Val Val Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala 165 170 175

Trp Ala Lys Val Ile Ala Ile Leu Leu Leu Val Ala Gly Val Asp Ala 180 185 190

<210> 83

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SW3

<400> 83

Val Glu Val Arg Asn Ile Ser Ser Ser Tyr Tyr Ala Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Thr Trp Gln Leu Thr Asn Ala Val Leu His Leu
20 25 30

Pro Gly Cys Val Pro Cys Glu Asn Asp Asn Gly Thr Leu His Cys Trp
35 40 45

Ile Gln Val Thr Pro Asn Val Ala Val Lys His Arg Gly Ala Leu Thr
50 55 60

His Asn Leu Arg Ala His Val Asp Met Ile Val Met Ala Ala Thr Val 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala Val Met Ile Val 85 90 95

Ser Gln Ala Phe Ile Ile Ser Pro Glu Arg His Asn Phe Thr Gln Glu 100 105 110 Cys Asn Cys Ser Ile Tyr Gln Gly Arg Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Leu Asn Trp Ser Pro Thr Leu Thr Met Ile Leu Ala 130 135 140

Tyr Ala Ala Arg Val Pro Glu Leu Val Leu Glu Val Val Phe Gly Gly
145 150 155 160

His Trp Gly Val Val Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala 165 170 175

Trp Ala Lys Val Ile Ala Ile Leu Leu Leu Val Ala Gly Val Asp Ala 180 185 190

<210> 84

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T8

<400> 84

Val Glu Val Arg Asn Thr Ser Phe Ser Tyr Tyr Ala Thr Asn Asp Cys

1 5 10 15

Ser Asn Asn Ser Ile Thr Trp Gln Leu Thr Asn Ala Val Leu His Leu
20 25 30

Pro Gly Cys Val Pro Cys Glu Asn Asp Asn Gly Thr Leu Arg Cys Trp
35 40 45

Ile Gln Val Thr Pro Asn Val Ala Val Lys His Arg Gly Ala Leu Thr
50 55 60

His Asn Leu Arg Thr His Val Asp Val Ile Val Met Ala Ala Thr Val 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Val Met Ile Ala 85 90 95

Ser Gln Ala Phe Ile Ile Ser Pro Glu Arg His Asn Phe Thr Gln Glu 100 105 110 Cys Asn Cys Ser Ile Tyr Gln Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Leu Asn Trp Ser Pro Thr Leu Thr Met Ile Leu Ala 130 135 140

Tyr Ala Ala Arg Val Pro Glu Leu Val Leu Glu Val Val Phe Gly Gly
145 150 155 160

His Trp Gly Val Val Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala 165 170 175

Trp Ala Lys Val Ile Ala Ile Leu Leu Leu Val Ala Gly Val Asp Ala 180 185 190

<210> 85

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S83

<400> 85

Val Glu Val Lys Asp Thr Gly Asp Ser Tyr Met Pro Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Trp Gln Leu Glu Gly Ala Val Leu His Thr 20 25 30

Pro Gly Cys Val Pro Cys Glu Arg Thr Ala Asn Val Ser Arg Cys Trp 35 40 45

Val Pro Val Ala Pro Asn Leu Ala Ile Ser Gln Pro Gly Ala Leu Thr
50 55 60

Lys Gly Leu Arg Ala His Ile Asp Ile Ile Val Met Ser Ala Thr Val 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Leu Met Leu Ala 85 90 95

Ala Gln Val Val Val Ser Pro Gln His His Thr Phe Val Gln Glu

100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly Arg Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Thr Met Leu Leu Ala 130 135 140

Tyr Leu Val Arg Ile Pro Glu Val Ile Leu Asp Ile Val Thr Gly Gly
145 150 155 160

His Trp Gly Val Met Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ser 165 170 175

Trp Ala Lys Val Ile Val Ile Leu Leu Leu Thr Ala Gly Val Glu Ala 180 185 190

<210> 86

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK12

<400> 86

Leu Glu Trp Arg Asn Val Ser Gly Leu Tyr Val Leu Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val Ile Leu His Thr
20 25 30

Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr Ser Thr Cys Trp 35 40 45

Thr Ser Val Thr Pro Thr Val Ala Val Arg Tyr Val Gly Ala Thr Thr 50 55 60

Ala Ser Ile Arg Ser His Val Asp Leu Leu Val Gly Ala Ala Thr Met 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Val Phe Leu Val 85 90 95 Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln Thr Val Gln Thr
100 105 110

Cys Asn Cys Ser Leu Tyr Pro Gly His Leu Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Ala Val Gly Met Val Val Ala 130 135 140

His Val Leu Arg Leu Pro Gln Thr Leu Phe Asp Ile Ile Ala Gly Ala 145 150 155 160

His Trp Gly Ile Met Ala Gly Leu Ala Tyr Tyr Ser Met Gln Gly Asn 165 170 175

Trp Ala Lys Val Ala Ile Ile Met Val Met Phe Ser Gly Val Asp Ala 180 185 190

<210> 87

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK10

<400> 87

Leu Glu Trp Arg Asn Val Ser Gly Leu Tyr Val Leu Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val Ile Leu His Thr
20 25 30

Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr Ser Thr Cys Trp 35 40 45

Thr Ser Val Thr Pro Thr Val Ala Val Arg Tyr Val Gly Ala Thr Thr 50 55 60

Ala Ser Ile Arg Ser His Val Asp Leu Leu Val Gly Ala Ala Thr Met 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala Val Phe Leu Val 85 90 95 Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln Thr Val Gln Thr
100 105 110

Cys Asn Cys Ser Leu Tyr Pro Gly His Leu Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Ala Val Gly Met Val Val Ala 130 135 140

His Val Leu Arg Leu Pro Gln Thr Leu Phe Asp Ilé Ile Ala Gly Ala 145 150 155 160

His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Gln Gly Asn 165 170 175

Trp Ala Lys Val Ala Ile Ile Met Val Met Phe Ser Gly Val Asp Ala
180 185 190

<210> 88

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S2

<400> 88

Leu Glu Trp Arg Asn Thr Ser Gly Leu Tyr Val Leu Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val Ile Leu His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr Ser Thr Cys Trp 35 40 45

Thr Pro Val Thr Pro Thr Val Ala Val Arg Tyr Val Gly Ala Thr Thr 50 55 60

Ala Ser Ile Arg Ser His Val Asp Leu Leu Val Gly Ala Ala Thr Met 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala Val Phe Leu Val

85 90 95

Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln Thr Val Gln Thr 100 105 110

Cys Asn Cys Ser Leu Tyr Pro Gly His Leu Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Ala Val Gly Met Val Val Ala 130 135 140

His Val Leu Arg Leu Pro Gln Thr Val Phe Asp Ile Ile Ala Gly Ala 145 150 155 160

His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Gln Gly Asn 165 170 175

Trp Ala Lys Val Ala Ile Ile Met Val Met Phe Ser Gly Val Asp Ala 180 185 190

<210> 89

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S52

<400> 89

Leu Glu Trp Arg Asn Thr Ser Gly Leu Tyr Val Leu Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val Ile Leu His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr Ser Met Cys Trp 35 40 45

Thr Pro Val Thr Pro Thr Val Ala Val Arg Tyr Val Gly Ala Thr Thr
50 55 60

Ala Ser Ile Arg Ser His Val Asp Leu Leu Val Gly Ala Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala Val Phe Leu Val 85 90 95

Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln Thr Val Gln Thr 100 105 110

Cys Asn Cys Ser Leu Tyr Pro Gly His Val Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Ala Val Gly Met Val Val Ala 130 135 140

His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Gln Gly Asn 165 170 175

Trp Ala Lys Val Ala Ile Val Met Ile Met Phe Ser Gly Val Asp Ala 180 185 190

<210> 90

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S54

<400> 90

Leu Glu Trp Arg Asn Thr Ser Gly Leu Tyr Ile Leu Thr Asn Asp Cys

1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val Ile Leu His Thr 20 25 30

Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr Ser Thr Cys Trp
35 40 45

Thr Pro Val Thr Pro Thr Val Ala Val Arg Tyr Val Gly Ala Thr Thr 50 55 60

Ala Ser Ile Arg Ser His Val Asp Leu Leu Val Gly Ala Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala Val Phe Leu Val 85 90 95

Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln Thr Val Gln Thr
100 105 110

Cys Asn Cys Ser Leu Tyr Pro Gly His Leu Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Ala Val Gly Met Val Val Ala 130 135 140

His Ile Leu Arg Leu Pro Gln Thr Leu Phe Asp Ile Leu Ala Gly Ala 145 150 155 160

His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Gln Gly Asn 165 170 175

Trp Ala Lys Val Ala Ile Ile Met Ile Met Phe Ser Gly Val Asp Ala 180 185 190

<210> 91

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: Z4

<400> 91

Glu His Tyr Arg Asn Ala Ser Gly Ile Tyr His Ile Thr Asn Asp Cys

1 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp His His Ile Leu His Leu
20 25 30

Pro Gly Cys Val Pro Cys Val Met Thr Gly Asn Thr Ser Arg Cys Trp 35 40 45

Thr Pro Val Thr Pro Thr Val Ala Val Ala His Pro Gly Ala Pro Leu 50 55 60

Glu Ser Phe Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr Leu

65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Gly Ala Phe Leu Met 85 90 95

Gly Gln Met Ile Thr Phe Arg Pro Arg Arg His Trp Thr Thr Gln Glu
100 105 110

Cys Asn Cys Ser Ile Tyr Thr Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Leu Leu Leu Ala 130 135 140

Gln Ile Met Arg Val Pro Thr Ala Phe Leu Asp Met Val Ala Gly Gly
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Phe Ser Met Gln Gly Asn 165 170 175

Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala
180 185 190

<210> 92

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: Z1

<400> 92

Val His Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Pro Asn Thr Ser Ile Val Tyr Glu Thr Glu His His Ile Met His Leu 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Thr Glu Asn Thr Ser Arg Cys Trp 35 40 45

Val Pro Leu Thr Pro Thr Val Ala Ala Pro Tyr Pro Asn Ala Pro Leu
50 55 60

Glu Ser Met Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr Met 65 70 75 80

Cys Ser Ala Phe Tyr Ile Gly Asp Leu Cys Gly Gly Val Phe Leu Val 85 90 95

Gly Gln Leu Phe Asp Phe Arg Pro Arg Arg His Trp Thr Thr Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ser Ala Leu Ile Met Ala 130 135 140

Gln Ile Leu Arg Ile Pro Ser Ile Leu Gly Asp Leu Leu Thr Gly Gly
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Phe Phe Ser Met Gln Ser Asn 165 170 175

Trp Ala Lys Val Ile Leu Val Leu Phe Leu Phe Ala Gly Val Glu Gly
180 185 190

<210> 93

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: Z6

<400> 93

Val Asn Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Glu His Gln Ile Leu His Leu
20 25 30

Pro Gly Cys Leu Pro Cys Val Arg Val Gly Asn Gln Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Val Ala Val Ser Tyr Ile Gly Ala Pro Leu 50 55 60

Asp Ser Leu Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr Val
65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Gly Ala Phe Leu Val 85 90 95

Gly Gln Met Phe Ser Phe Gln Pro Arg Arg His Trp Thr Thr Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Ala Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Thr Leu Leu Leu Ala 130 135 140

Gln Val Met Arg Ile Pro Ser Thr Leu Val Asp Leu Leu Ala Gly Gly
145 150 155 160

His Trp Gly Val Leu Val Gly Leu Ala Tyr Phe Ser Met Gln Ala Asn 165 170 175

Trp Ala Lys Val Ile Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala 180 185 190

<210> 94

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: Z7

<400> 94

Val Asn Tyr His Asn Ala Ser Gly Val Tyr His Ile Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Met Tyr Glu Ala Glu His His Ile Leu His Leu
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Gln Ser Arg Cys Trp 35 40 45

Val Ala Leu Thr Pro Thr Val Ala Ala Pro Tyr Ile Gly Ala Pro Leu

50 55 60

Glu Ser Ile Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr Val 65 70 75 80

Cys Ser Ala Leu Tyr Ile Gly Asp Leu Cys Gly Gly Val Phe Leu Val 85 90 95

Gly Gln Met Phe Ser Phe Gln Pro Arg Arg His Trp Thr Thr Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Ala Gly His Val Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Leu Val Leu Ala 130 135 140

Gln Val Met Arg Ile Pro Ser Thr Leu Val Asp Leu Leu Thr Gly Gly
145 150 155 160

His Trp Gly Ile Leu Ile Gly Val Ala Tyr Phe Cys Met Gln Ala Asn 165 170 175

Trp Ala Lys Val Ile Leu Val Leu Phe Leu Tyr Ala Gly Val Asp Ala 180 185 190

<210> 95

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK13

<400> 95

Tyr Asn Tyr Arg Asn Ser Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Thr Asp Tyr His Ile Leu His Leu
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Lys Ser Thr Cys Trp 35 40 45 Val Ser Leu Thr Pro Thr Val Ala Ala Gln His Leu Asn Ala Pro Leu 50 55 60

Glu Ser Leu Arg Arg His Val Asp Leu Met Val Gly Gly Ala Thr Leu 65 70 75 80

Cys Ser Ala Leu Tyr Ile Gly Asp Val Cys Gly Gly Val Phe Leu Val 85 90 95

Gly Gln Leu Phe Thr Phe Gln Pro Arg Arg His Trp Thr Thr Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Thr Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Thr Ala Thr Leu Val Leu Ala 130 135 140

Gln Leu Met Arg Ile Pro Gly Ala Met Val Asp Leu Leu Ala Gly Gly 145 150 155 160

His Trp Gly Ile Leu Val Gly Ile Ala Tyr Phe Ser Met Gln Ala Asn 165 170 175

Trp Ala Lys Val Ile Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala 180 185 190

<210> 96

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA1

<400> 96

Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Ser Leu Ile Leu His Ala 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Gln Asp Asn Val Ser Arg Cys Trp 35 40 45 Val Gln Ile Thr Pro Thr Leu Ser Ala Pro Thr Phe Gly Ala Val Thr
50 55 60

Ala Pro Leu Arg Arg Ala Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Ala Cys Gly Ala Val Phe Leu Val 85 90 95

Gly Gln Met Phe Thr Tyr Arg Pro Arg Gln His Thr Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Leu Met Ala 130 135 140

Gln Met Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Gly
145 150 155 160

His Trp Gly Val Leu Phe Ala Ala Ala Tyr Phe Ala Ser Ala Ala Asn 165 170 175

Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Gly
180 185 190

<210> 97

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA4

<400> 97

Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Asn Leu Ile Leu His Ala 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Gln Asp Asn Val Ser Lys Cys Trp

35 40 45

Val Gln Ile Thr Pro Thr Leu Ser Ala Pro Asn Leu Gly Ala Val Thr 50 55 60

Ala Pro Leu Arg Arg Ala Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Ala Cys Gly Ala Val Phe Leu Val 85 90 95

Gly Gln Met Phe Thr Tyr Arg Pro Arg Gln His Thr Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Leu Met Ala 130 135 140

Gln Leu Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Gly
145 150 155 160

His Trp Gly Val Leu Phe Ala Ala Ala Tyr Phe Ala Ser Ala Ala Asn 165 170 175

Trp Ala Lys Val Ile Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala 180 185 190

<210> 98

<211> 192

<212> PRT

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<223> Individual Isolate: SA5

<400> 98

Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Asn Leu Ile Leu His Ala 20 25 30 Pro Gly Cys Val Pro Cys Val Lys Glu Gly Asn Val Ser Arg Cys Trp
35 40 45

Val Gln Ile Thr Pro Thr Leu Ser Ala Pro Asn Leu Gly Ala Val Thr
50 55 60

Ala Pro Leu Arg Arg Val Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Ala Cys Gly Ala Val Phe Leu Val 85 90 95

Gly Gln Met Phe Thr Tyr Arg Pro Arg Gln His Thr Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Met Ala 130 135 140

Gln Val Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Gly
145 150 155 160

His Trp Gly Val Leu Phe Ala Val Ala Tyr Phe Ala Ser Ala Ala Asn 165 170 175

Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Gly
180 185 190

<210> 99

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA6

<400> 99

Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Leu Ile Leu His Ala 20 25 30 Pro Gly Cys Val Pro Cys Val Arg Lys Asp Asn Val Ser Arg Cys Trp
35 40 45

Val His Ile Thr Pro Thr Leu Ser Ala Pro Ser Leu Gly Ala Val Thr 50 55 60

Ala Pro Leu Arg Arg Ala Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Leu Phe Leu Val 85 90 95

Gly Gln Met Phe Thr Tyr Arg Pro Arg Gln His Ala Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Asn Trp Ser Pro Ala Thr Ala Leu Val Met Ala 130 135 140

Gln Met Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Gly
145 150 155 160

His Trp Gly Val Leu Phe Ala Ala Ala Tyr Phe Ala Ser Ala Ala Asn 165 170 175

Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala
180 185 190

<210> 100

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA7

<400> 100

Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Asn Leu Ile Leu His Ala

20 25 30

Pro Gly Cys Val Pro Cys Val Arg Gln Asn Asn Val Ser Arg Cys Trp 35 40 45

Val Gln Ile Thr Pro Thr Leu Ser Ala Pro Asn Leu Gly Ala Val Thr
50 55 60

Ala Pro Leu Arg Arg Ala Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Ala Cys Gly Ala Val Phe Leu Val 85 90 95

Gly Gln Met Phe Ser Tyr Arg Pro Arg Gln His Thr Thr Val Gln Asp \$100\$ \$100\$

Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Met Ala 130 135 140

Gln Leu Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Gly
145 150 155 160

His Trp Gly Val Leu Phe Ala Ala Ala Tyr Phe Ala Ser Ala Ala Asn 165 170 175

Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala 180 185 190

<210> 101

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<223> Individual Isolate: SA13

<400> 101

Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys

1 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Leu Ile Leu His Ala
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Gln Gly Asn Val Ser Arg Cys Trp 35 40 45

Val Gln Ile Thr Pro Thr Leu Ser Ala Pro Ser Leu Gly Ala Val Thr 50 55 60

Ala Pro Leu Arg Arg Ala Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Ala Cys Gly Ala Val Phe Leu Val 85 90 95

Gly Gln Met Phe Thr Tyr Ser Pro Arg Arg His Asn Val Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Met Ala 130 135 140

Gln Leu Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Ala 145 150 155 160

His Trp Gly Val Leu Phe Ala Ala Ala Tyr Tyr Ala Ser Ala Ala Asn 165 170 175

Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala 180 185 190

<210> 102

<211> 192

<212> PRT

<213> Homo sapiens

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<223> Individual Isolate: HK2

<400> 102

Leu Thr Tyr Gln Asn Ser Ser Gln Leu Tyr His Leu Thr Asn Asp Cys

1 5 10 15

Pro Asn Ser Ser Ile Val Leu Glu Ala Asp Ala Met Ile Leu His Leu
20 25 30

Pro Gln Cys Leu Pro Cys Val Arg Val Asp Asp Arg Ser Thr Cys Trp 35 40 45

His Ala Val Thr Pro Thr Leu Ala Ile Pro Asn Ala Ser Thr Pro Ala 50 55 60

Thr Gln Phe Arg Arg His Val Asp Leu Leu Ala Gln Ala Ala Val Val 65 70 75 80

Cys Ser Ser Leu Tyr Ile Gln Asp Leu Cys Gln Ser Leu Phe Leu Ala 85 90 95

Gln Gln Leu Phe Thr Phe Gln Pro Arg Arg His Trp Thr Val Gln Asp 100 105 110

Cys Asn Cys Ser Ile Tyr Thr Gln His Val Thr Gln His Arg Met Ala 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Thr Leu Val Leu Ser 130 135 140

Ser Ile Leu Arg Val Pro Glu Ile Cys Ala Ser Val Ile Phe Gln Gln 145 150 155 160

His Trp Gln Ile Leu Leu Ala Val Ala Tyr Phe Gln Met Ala Gln Asn 165 170 175

Trp Leu Lys Val Leu Ala Val Leu Phe Leu Phe Ala Gln Val Glu Ala 180 185 190

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<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: HK2

<400> 154

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<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK7

<400> 155

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Pro Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly

65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

<210> 156

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: US11

<400> 156

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp 85 90 Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro 100 105 Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140 Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 150 155 160 Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190 <210> 157 <211> 191 <212> PRT <213> Homo sapiens <223> Individual Isolate: S14 <400> 157 Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 5 10 15 Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30 Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

<210> 158

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SW1

<400> 158

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn

1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro

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Arg Arg Arg	Ser Arg Asn I	Leu Gly Lys Val	Ile Asp Thr Leu 125	Thr Cys
Gly Phe Ala 130	_	Gly Tyr Ile Pro 135	Leu Val Gly Ala	Pro Leu
Gly Gly Ala 145	Ala Arg Ala I 150	Leu Ala His Gly	Val Arg Val Leu 155	Glu Asp 160
Gly Val Asn	Tyr Ala Thr (Gly Asn Leu Pro 170	Gly Cys Ser Phe	Ser Ile 175
Phe Leu Leu	Ala Leu Leu S 180	Ser Cys Leu Thr 185	Val Pro Ala Ser 190	

<210> 159 <211> 191 <212> PRT <213> Homo sapiens

<223> Individual Isolate: S18

<400> 159

<220>

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly 65 70. 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

<210> 160

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DR4

<400> 160

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

<210> 161

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA10

<400> 161

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu

130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Pro Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 162

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S45

<400> 162

Met Ser Thr Asn Pro Lys Pro Gln Arg Ala Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly
65 70 75 80

His Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp

85

90

95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140 Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 163

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: D1

<400> 163

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160 Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 164

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: US6

<400> 164

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile

165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 165

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: P10

<400> 165

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175 Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 166

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK1

<400> 166

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190 <210> 167 <211> 191 <212> PRT <213> Homo sapiens <220> <223> Individual Isolate: T10 <400> 167 Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 5 10 15 Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30 Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60 Ile Pro Lys Ala Arg Gln Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly 65 70 75 Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp 85 90 Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro 100 105 110 Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140 Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile

155

150

165

145

<210> 168

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SW2

<400> 168

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 169

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: IND3

<400> 169

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 170

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: IND8

<400> 170

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly
65 70 75 80

His Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

<210> 171

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S9

<400> 171

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg His Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 172

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK3

<400> 172

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Thr Pro Ala Ser Ala 180 185 190

<210> 173

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK5

<400> 173

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn

1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro His Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Ile Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Thr Pro Val Ser Ala 180 185 190

<210> 174

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK4

<400> 174

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Val Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 175

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: P8

<400> 175

Met Ser Thr Thr Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Ser 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly
65 70 75 80

His Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Leu 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Val Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 176

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T3

<400> 176

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala

35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asp Glu Gly Met Gly Trp Ala Gly Trp

85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala 180 185 190

<210> 177

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T4

<400> 177

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45 Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125

Ser Leu Ala Asp Leu Met Gly Tyr Val Pro Val Val Gly Gly Pro Leu 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Thr Ile Pro Val Ser Ala 180 185 190

<210> 178

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: US10

<400> 178

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Asp Arg Arg Pro Thr Gly Lys Ser Trp Gly Lys Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Leu 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Thr Ile Pro Val Ser Ala 180 185 190

<210> 179

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T9

<400> 179

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Ile Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Thr
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly

65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Ser Asp Pro
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Leu 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Thr Thr Pro Ala Ser Ala 180 185 190

<210> 180

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T2

<400> 180

Met Ser Thr Ile Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Leu 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Thr Ile Pro Val Ser Ala 180 185 190

<210> 181

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T8

<400> 181

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Thr Trp Gly Pro Thr Asp Pro
100 105 110

Arg His Arg Ser Arg Asn Leu Gly Arg Val Ile Asp Thr Ile Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Phe Thr Val Pro Val Ser Ala 180 185 190

<210> 182

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: US1

<400> 182

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Thr Trp Gly Pro Thr Asp Pro

			100				105					110				
Arg	His	Arg	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Ile	Thr	Cys	
		115					120					125				

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ala Thr Val Pro Val Ser Ala 180 185 190

<210> 183

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK11

<400> 183

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Thr 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Pro Trp Gly Lys Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser His Pro Asn Trp Gly Pro Thr Asp Pro
100 105 110

Arg His Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Ile Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Cys Thr Val Pro Val Ser Ala 180 185 190

<210> 184

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SW3

<400> 184

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser His Pro Asn Trp Gly Pro Thr Asp Pro
100 105 110

Arg His Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Ile Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val
130 135 140

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Phe Thr Val Pro Val Ser Ala 180 185 190

<210> 185

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK8

<400> 185

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Ser Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Thr Trp Gly Pro Thr Asp Pro
100 105 110

Arg His Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Ile Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val

130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Cys Thr Val Pro Val Ser Ala 180 185 190

<210> 186

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S83

<400> 186

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Asp Arg Arg Thr Thr Gly Lys Ser Trp Gly Arg Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg His Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val 130 135 140 Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Ser Val Pro Val Ser Ala 180 185 190

<210> 187

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK10

<400> 187

Met Ser Thr Leu Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Ile 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Val Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp 145 150 155 160 Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Phe Ser Cys Leu Ile His Pro Ala Ala Ser 180 185 190

<210> 188

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: \$52

<400> 188

Met Ser Thr Leu Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Ile 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Val Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp 145 150 155 160

Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile

165 170 175

Phe Leu Leu Ala Leu Phe Ser Cys Leu Val His Pro Ala Ala Ser 180 185 190

<210> 189

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S2

<400> 189

Met Ser Thr Leu Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Ile 1 5 10 15

Arg Arg Pro Gln Asp Ile Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Val Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp 145 150 155 160

Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175 Phe Leu Leu Ala Leu Phe Ser Cys Leu Ile His Pro Ala Ala Ser 180 185 190

<210> 190

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK12

<400> 190

Met Ser Thr Leu Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Ile
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Val Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp 145 150 155 160

Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Phe Ser Cys Leu Ile His Pro Ala Ala Ser 180 185 190

	<211> 191 <212> PRT <213> Homo sapiens															
	<220> <223> Individual Isolate: Z4															
<400> 191																
	Met 1	Ser	Thr	Asn	Pro 5	Lys	Pro	Gln	Arg	Lys 10	Thr	Lys	Arg	Asn	Thr 15	Asn
	Arg	Arg	Pro	Met 20	Asp	Val	Lys	Phe	Pro 25	Gly	Gly	Gly	Gln	Ile 30	Val	Gly
	Gly	Val	Tyr 35	Leu	Leu	Pro	Arg	Arg 40	Gly	Pro	Arg	Leu	Gly 45	Val	Arg	Ala
	Thr	Arg 50	Lys	Thr	Ser	Glu	Arg 55	Ser	Gln	Pro	Arg	Gly 60	Arg	Arg	Gln	Pro
	Ile 65	Pro	Lys	Ala	Arg	Gln 70	Pro	Glu	Gly	Arg	Ser 75	Trp	Ala	Gln	Pro	Gly 80
	Tyr	Pro	Trp	Pro	Leu 85	Tyr	Gly	Asn	Glu	Gly 90	Cys	Gly	Trp	Ala	Gly 95	Trp
	Leu	Leu	Ser	Pro 100	Arg	Gly	Ser	Arg	Pro 105	Ser	Trp	Gly	Pro	Asn 110	Asp	Pro
	Arg	Arg	Arg 115	Ser	Arg	Asn	Leu	Gly 120	Lys	Val	Ile	Asp	Thr 125	Leu	Thr	Cys
	Gly	Phe 130	Ala	Asp	Leu	Met	Gly 135	Tyr	Ile	Pro	Ile	Val 140	Gly	Ala	Pro	Val
	Gly 145	Gly	Val	Ala	Arg	Ala 150	Leu	Ala	His	Gly	Val 155	Arg	Ala	Val	Glu	Asp 160
	Gly	Ile	Asn	Tyr	Ala 165	Thr	Gly	Asn	Leu	Pro 170	Gly	Cys	Ser	Phe	Ser 175	Ile
	Phe	Leu	Leu	Ala	Leu	Leu	Ser	Cys	Leu	Thr	Val	Pro	Ala	Ser	Ala	

<210> 191

<210> 192

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: Z8

<400> 192

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Met Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp

85 . 90 . 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Val Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

<210> 193

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: Z1

<400> 193

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Met Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Ala Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Val Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Thr Pro Ala Ser Ala 180 185 190

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Arg Arg Pro Met Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Gln Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp

85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Gln Asn Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Phe Ser Cys Leu Thr Thr Pro Ala Ser Ala 180 185 190

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<400> 195

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Met Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Val Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Thr Ser Ala 180 185 190

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Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Met Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Thr 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

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Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn

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Arg Arg Pro Met Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Leu Glu Gly Arg Ser Trp Ala Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Leu Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

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<211> 191

<212> PRT

<213> Homo sapiens

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<223> Individual Isolate: SA4

<400> 198

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

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<400> 199

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

<210> 200

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<212> PRT

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<223> Individual Isolate: SA7

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Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala

35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

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<212> PRT

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<223> Individual Isolate: SA1

<400> 201

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Leu Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45 Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Ile Ile Pro Ala Ser Ala 180 185 190

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<223> Individual Isolate: SA3

<400> 202

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Glu Trp Ala Gly Trp

85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

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Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly

65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Thr Ser Ala 180 185 190

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Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Gln Arg Asn Thr Asn

1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Met Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Ser Ala Gly Arg Ser Trp Gly Gln Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Val Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

<210> 205

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<212> PRT

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<223> Individual Isolate: SA11

<400> 205

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Phe Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp

85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Thr Ala 180 185 190

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Met Ser Thr Leu Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Thr Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Pro Gln Gly Arg His Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro His Trp Gly Pro Asn Asp Pro

100 105 110 Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125 Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Leu 130 135 140 Gly Val Ala Ala Ala Leu Ala His Gly Val Arg Ala Ile Glu Asp 145 150 155 160 Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175 Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Thr Pro Ala Ser Ala 180 185 190 <210> 207 <211> 40 <212> DNA <213> Homo sapiens <400> 207 40 gcgtccgggt tctggaagac ggcgtgaact atgcaacagg <210> 208 <211> 40 <212> DNA <213> Homo sapiens <400> 208 aggettteat tgeagtteaa ggeegtgeta ttgatgtgee 40 <210> 209 <211> 40 <212> DNA <213> Homo sapiens <400> 209 aagacggcgt gaactatgca acagggaacc ttcctggttg 40 <210> 210 <211> 40

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1 5 10 15

Leu Asp Ile Val Thr Gly Gly 20

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<211> 23

<212> PRT

<213> Homo sapiens

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Thr Xaa Thr Xaa Ile Leu Ala Tyr Xaa Met Arg Val Pro Glu Val Ile 1 5 10 15

Xaa Asp Ile Xaa Xaa Gly Ala 20

<210> 255

<211> 23

<212> PRT

<213> Homo sapiens

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Ala Val Gly Met Val Val Ala His Xaa Leu Arg Leu Pro Gln Thr Xaa 1 5 10 15

Phe Asp Ile Xaa Ala Gly Ala

20

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<211> 23

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<213> Homo sapiens

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Thr Xaa Ala Leu Val Xaa Ser Gln Leu Leu Arg Xaa Pro Gln Ala Xaa 1 5 10 15

Xaa Asp Xaa Val Xaa Gly Ala

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<211> 23

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Val Asp Leu Leu Ala Gly Gly
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Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Xaa Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala 180 185 190

<210> 265

<211> 191

<212> PRT

<213> Homo sapiens

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<223> "Leu" or "Ile"
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<223> "Ile" or "Val" or "Thr"
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<223> "Ala" or "Val"
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Met Ser Thr Xaa Pro Lys Pro Gln Arg Xaa Thr Lys Arg Asn Thr Xaa
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                                      10
                                                           15
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Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 55 Ile Pro Lys Ala Arg Xaa Pro Glu Gly Arg Xaa Trp Ala Gln Pro Gly 70 75 Xaa Pro Trp Pro Leu Tyr Xaa Xaa Glu Gly Xaa Gly Trp Ala Gly Trp 85 90 Leu Leu Ser Pro Xaa Gly Ser Arg Pro Xaa Trp Gly Pro Xaa Asp Pro 105 Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys 115 120 125 Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Xaa Pro Leu 135 Gly Gly Xaa Ala Arg Ala Leu Ala His Gly Val Arg Val Xaa Glu Asp 150 155

Gly Val Asn Tyr Ala Thr Gly Asn Xaa Pro Gly Cys Xaa Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Xaa Pro Xaa Ser Ala 180 185 190

<210> 266

<211> 191

<212> PRT

<213> Homo sapiens

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Met Ser Thr Xaa Pro Lys Pro Gln Arg Xaa Thr Lys Arg Asn Thr Xaa
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Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly

20 25 30

Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala 35 40 45

Xaa Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
50 55 60

Ile Pro Lys Ala Arg Xaa Pro Glu Gly Arg Xaa Trp Ala Gln Pro Gly 65 70 75 80

Xaa Pro Trp Pro Leu Tyr Xaa Xaa Glu Gly Xaa Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Xaa Gly Ser Arg Pro Xaa Trp Gly Pro Xaa Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Xaa Pro Leu 130 135 140

Gly Gly Xaa Ala Arg Ala Leu Ala His Gly Val Arg Val Xaa Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Xaa Pro Gly Cys Xaa Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Xaa Pro Xaa Ser Ala 180 185 190

<210> 267

<211> 191

<212> PRT

<213> Homo sapiens

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<222> (12)

<223> "Ile" or "Lys"

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<223> "Thr" or "Ala"
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<223> "Gly" or "Ser"
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<222> (187)
<223> "Thr" or "Ile"
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<221> SITE
<222> (189)
<223> "Ala" or "Val"
<400> 267
Met Ser Thr Xaa Pro Lys Pro Gln Arg Lys Thr Xaa Arg Asn Thr Asn
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                  5
                                       10
                                                            15
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Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Xaa 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Asp Arg Arg Xaa Thr Gly Lys Ser Trp Gly Lys Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp

85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Xaa Asp Pro
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Xaa Xaa Ala Asp Leu Met Gly Tyr Xaa Pro Val Val Gly Xaa Pro Leu 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Thr Xaa Pro Xaa Ser Ala 180 185 190

<210> 268

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<212> PRT

<213> Homo sapiens

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Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
             20
                                 25
                                                      30
Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Xaa
         35
                             40
                                                  45
Thr Arg Lys Xaa Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
     50
                         55
                                              60
Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Xaa Trp Gly Lys Pro Gly
 65
                     70
                                          75
                                                              80
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Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Xaa Pro Xaa Trp Gly Pro Thr Asp Pro
100 105 110

Arg His Xaa Ser Arg Asn Leu Gly Xaa Val Ile Asp Thr Ile Thr Cys 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Xaa Thr Val Pro Val Ser Ala 180 185 190

<210> 269

<211> 191

<212> PRT

<213> Homo sapiens

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<222> (4)

<223> "Asn" or "Ile"

<220>

<221> SITE

<222> (12)

<223> "Lys" or "Ile"

<220>

<221> SITE

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<223> "Thr" or "Ala"

<220>

<221> SITE

<222> (52)

<223> "Thr" or "Ser"

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<223> "Pro" or "Ser"
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<223> "Lys" or "Arg"
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<222> (91)
<223> "Cys" or "Leu"
<220>
<221> SITE
<222> (104)
<223> "His" or "Arg"
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<223> "Asn" or "Thr" or "Ser"
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<223> "Thr" or "Asn" or "Ser"
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<223> "Leu" or "Val"
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<222> (121)
<223> "Lys" or "Arg"
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<222> (129)
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<222> (130)
<223> "Phe" or "Leu"
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<222> (137)
<223> "Ile" or "Val"
<220>
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<223> "Ala" or "Gly"
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<223> "Val" or "Leu"
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<223> "Cys" or "Phe" or "Ala" or "Ile"
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<223> "Thr" or "Ser"
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<222> (187)

<223> "Val" or "Ile" or "Thr"

<220>

<221> SITE

<222> (189)

<223> "Val" or "Ala"

<400> 269

Met Ser Thr Xaa Pro Lys Pro Gln Arg Lys Thr Xaa Arg Asn Thr Asn 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly 20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Xaa 35 40 45

Thr Arg Lys Xaa Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Asp Arg Arg Xaa Thr Gly Lys Xaa Trp Gly Xaa Pro Gly 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Xaa Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Xaa Pro Xaa Trp Gly Pro Xaa Asp Pro
100 105 110

Arg His Xaa Ser Arg Asn Xaa Gly Xaa Val Ile Asp Thr Xaa Thr Cys 115 120 125

Xaa Xaa Ala Asp Leu Met Gly Tyr Xaa Pro Val Val Gly Xaa Pro Xaa 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp 145 150 155 160

Gly Xaa Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Xaa Xaa Xaa Pro Xaa Ser Ala 180 185 190

<210> 270

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<222> (186)
<223> "Ile" or "Val"
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Arg Arg Pro Gln Asp Xaa Lys Phe Pro Gly Gly Gln Ile Val Gly
             20
                                 25
Gly Val Tyr Val Leu Pro Arg Gly Pro Arg Leu Gly Val Arg Ala
         35
                             40
Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
     50
                         55
                                              60
Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly
 65
                     70
                                          75
Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
                 85
                                      90
Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro
            100
                                105
Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
        115
                            120
Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val
    130
                        135
                                             140
Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp
                    150
                                         155
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Phe Leu Leu Ala Leu Phe Ser Cys Leu Xaa His Pro Ala Ala Ser

165

Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile

170

180 185 190

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<210> 271
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Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys

115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Xaa Val Gly Ala Pro Val 130 135 140

Gly Xaa Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Leu Leu Ala Leu Xaa Ser Cys Leu Thr Xaa Pro Xaa Ser Ala 180 185 190

<210> 272

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<222> (12)

<223> "Lys" or "Gln"

<220>

<221> SITE

<222> (17)

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<223> "Thr" or "Ala"

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Xaa Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Xaa Gly Val Arg Ala 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro 50 55 60

Ile Pro Lys Ala Arg Gln Xaa Xaa Gly Arg Ser Trp Gly Gln Pro Gly 65 70 75 80

Tyr Pro Trp Pro Xaa Tyr Ala Asn Glu Gly Leu Xaa Trp Ala Gly Trp 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Xaa Trp Gly Pro Asn Asp Pro
100 105 110

Arg Arg Xaa Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Xaa Leu Glu Asp 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile 165 170 175

Phe Xaa Leu Ala Leu Leu Ser Cys Leu Xaa Xaa Pro Xaa Xaa Ala 180 185 190

<210> 273

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Gly	Val	Tyr 35	Xaa	Leu	Pro	Arg	Arg 40	Gly	Pro	Arg	Xaa	Gly 45	Val	Arg	Xaa
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Gly Xaa Asn Xaa Ala Thr Gly Asn Xaa Pro Gly Cys Xaa Phe Ser Ile

Phe Xaa Leu Ala Leu Xaa Ser Cys Xaa Xaa Xaa Pro Xaa Xaa Xaa